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# COVID-19

## Salt in the Wound of Health Care Inequality and the Cause of a New Health Care Disparity

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### KEYWORDS

- COVID-19 • Health care disparity • Health inequality
- Nosocomial COVID-19 infections • Non-COVID-19 health conditions

### INTRODUCTION

Being an emergency room (ER) PA in a rural community, I, unfortunately, see firsthand the sad stories, the impact, and the faces of health care disparity. However, like almost every other American, the year 2020 would be like no other for my family. My mother would face job loss and a new status, low socioeconomic status. She would become part of a statistical, an American of low socioeconomic status to contract COVID-19. She would also lose her health care coverage, diminishing her access to health care. All of this could be traced back to the indirect pain COVID-19 would inflict on the economy of my small hardworking hometown, forcing the local paper mill to close. If this was happening to my family, what was happening to those already fighting an uphill battle of health care despair before the pandemic?

Not only would my family face job loss and the issues thereof, my aunt would also be diagnosed with stage IV melanoma. Her diagnosis, and ultimately her time-sensitive treatment, would be delayed by 2 months because of the direct burden of the pandemic on the health care delivery system and on nonemergent procedures. Was COVID-19 opening up a new health care disparity wound? What was happening to those with chronic, time-sensitive medical conditions and those who rely on regular medical treatments? What effects would COVID-19-related barriers and delays in receiving adequate and timely care for non-COVID-19-related medical needs have on these patients? Not to mention, what effect would the pandemic have on routine medical screening examinations and routine screening procedures? How was COVID-19 going to affect medical conditions that are found during routine screenings if we were not screening patients? How would patient hesitancy to receive medical care due to the risks of contracting COVID-19 have on overall outcomes and mortality for non-COVID-19-related medical conditions?

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## COVID-19 AND RACE: SALT IN AN ALREADY OPEN WOUND OF HEALTH CARE DISPARITY

We know that COVID-19 did not create health care inequalities, but it has put salt in the open wound of health care inequality among racial groups in the United States. Just as the measles epidemic from 1989 to 1991, just like the yellow fever epidemic in 1792, COVID-19 would write a new page in public health with the same message. It would disproportionately impact those of color. As per the Centers for Disease Control (CDC) statistics<sup>1</sup> from November 2020, cases of COVID-19 would be  $2.6 \times$  higher in African Americans than in White, non-Hispanic persons. Hospitalizations would be  $4.6 \times$  higher and deaths would be  $2.1 \times$  higher among African Americans than among White non-Hispanic persons. The higher rates of cases, hospitalizations, and death from COVID-19 would also be higher among American Indian/Alaskan Natives and Hispanic/Latino persons. See [Fig. 1](#) and [Table 1](#) from CDC surveillance data. As of Nov 13, 2020, the most up-to-date CDC surveillance data for the rate of hospitalization are as follows: Demonstrating the disproportionate complications in the people of color<sup>1</sup>

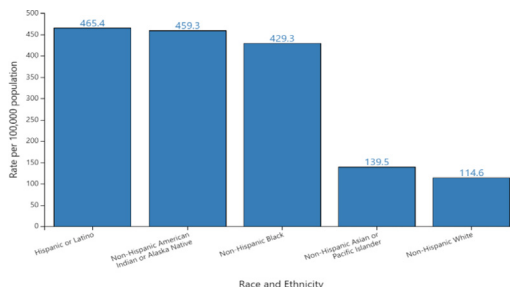
- 465.4/100,000 for Hispanic or Latino
- 459.3/100,000 for American Indian or Alaskan Native
- 429.3/100,000 for non-Hispanic Black
- 114.6/100,000 for non-Hispanic White

In a retrospective cohort study reported in an article published in the *Journal of Racial and Ethnic Health Disparities*,<sup>2</sup> data demonstrate higher rates of hospitalization and mortality in racial minorities with COVID-19. This study looked at 734 hospitalized patients from 3/10/20 to 4/13/20 in their affiliated NYC hospitals. Data demonstrated that Blacks in Brooklyn were twice as likely to require hospitalization for COVID-19 (42.9/100,000) compared with White patients (22.7/100,000). Hispanics had an increased risk of inpatient mortality [hazard ratio (HR) = 1.84%; 95% confidence interval (CI) = 1.21–2.80;  $P = .005$ ] along with Asian patients (HR = 2.06%; 95% CI = 1.08–3.93;  $P = .03$ ). Blacks were also disproportionately a higher percentage of the COVID-19-related deaths than White patients.

## DISCUSSION: WHAT CAN WE DO AS HEALTH CARE PROVIDERS

### Key Points

- The reasons for racial disparity in COVID-19 hospitalization and mortality are multifactorial, thus so is the solution.



**Fig. 1.** Age-adjusted COVID-19-associated hospitalization rates by race and ethnicity—COVID-NET, March 1–November 14, 2020. (From <https://www.cdc.gov/coronavirus/2019-ncov/covid-data/covidview/index.html>.)

**Table 1**  
**CDC death and hospitalization data by race**

Rate Ratios Compared to White, Non-Hispanic Persons	American Indian or Alaska Native, Non-Hispanic Persons	Asian, Non-Hispanic Persons	Black or African American, Non-Hispanic Persons	Hispanic or Latino Persons
Cases <sup>1</sup>	2.8 × higher	1.1 × higher	2.6 × higher	2.8 × higher
Hospitalization <sup>2</sup>	5.3 × higher	1.3 × higher	4.7 × higher	4.6 × higher
Death <sup>3</sup>	1.4 × higher	No Increase	2.1 × higher	1.1 × higher

Race and ethnicity are risk markers for other underlying conditions that impact health – including socioeconomic status, access to health care, and increased exposure to the virus due to occupation (e.g., frontline, essential, and critical infrastructure workers).

From <https://www.cdc.gov/coronavirus/2019-ncov/covid-data/investigations-discovery/hospitalization-death-by-race-ethnicity.html>.

- People of color are at a higher risk of losing their job because of the economy related to the effect of COVID-19. There are state and federal grants to help displaced workers that we can provide information for.<sup>3</sup>
- It is known that people of color may not trust their medical provider or medical system. We need to increase our cultural understanding with institutional training engaging all medical professionals.<sup>4</sup>
- Encourage a safe environment that embraces cultural humility.
- Advocate for funding, education, research, and government initiatives aimed specifically at COVID-19-related barriers to care for minorities such as access to testing.<sup>5</sup>

Many argue that the reason for the staggering statistics among America's ethnic minorities is due to higher rates of comorbidities that are known to put those who contract COVID-19 at a higher risk of mortality, hospitalization, and complications from COVID-19. Some argue that it is due to their access to care, lack of insurance, or lack of access to testing. Some argue that it is due to their rate of low socioeconomic status and higher rates of minorities working in essential jobs that do not allow them to stay at home and thus put them at a higher risk for contracting COVID-19. We can see that the reasons for this health care disparity are multifactorial, are complex, and will take a multidisciplinary effort to improve.

In an article calling for action against health inequality with COVID-19-related disparities, the potential reasons for this disparity are discussed as well as the multidisciplinary actions that need to occur to help heal this wound.<sup>4</sup> They note that the people of color are likely to suffer more job loss because of the strains of the pandemic on the economy as 16.8% of Black workers and 17.6% of Hispanic workers are employed in jobs most at risk because of the state of the economy. With this effect on employment, this could further affect more people of color losing their insurance; lack of insurance is a deterrent to seek medical care. People of color receive better care when cared for by providers of the same cultural identity; however, for example, 12% of the US population is Black, but 5% of health care providers are Black. To combat this, it is recommended to form partnerships between schools to educate and expose students to health care occupations in their community (citation?), as well as advocating with local political leaders, hospital administrators to aid in providing mentorship, and financial incentives to reduce economic hardship/barriers to get an education. One such

example is the National COVID-19 Dislocated Worker Grant, which provides funds that many Americans are using toward education and learning new skills, thus improving the chance of employment.<sup>3</sup>

Owing to numerous factors such as implicit bias by the medical community and prior history of people of color being failed by the medical system, a lot of people of color distrust medical treatment and medical providers.<sup>4</sup> This distrust can impact the community's perception of risk, leading to myths, misconceptions of risk, and less community involvement in safety measures such as wearing a mask or social distancing. To combat this, recommended interventions include<sup>4</sup>

- Better training programs for health care professionals that represent the cultural makeup of the local communities they serve
- Training program at the institutional and individual level that seek to combat racism, implicit bias, and microaggressions
- Policies in place that mandate interactive training for all staff that not only engages professionals but also recognizes the role of social determinants of health
- Clinicians and health care staff nurturing an environment that embraces cultural humility
- Being advocates for research and funding geared toward patients who experience implicit bias and disparity in health care.

An article published in the *American Journal of Public Health*<sup>5</sup> offered strategies that combat barriers to care for those with COVID-19 in minority communities. With increased testing initiatives during the pandemic, access to testing has not been equivalent across races. Drive-in testing and telehealth screenings have not been accessible because of the lack of technology or transportation. The cost of care continues to be a barrier despite Medicaid/Medicare and the Families First Coronavirus Response Act. A visit to the ER, beyond testing for COVID-19, can still lead to medical bills, deterring those in the community from seeking care. Partnerships among academic institutions and community organizations to fast-track screening sites and resource testing centers in the areas of need are recommended. There should also be a standard approach to counseling, educating patients of racial communities about health risks to contracting COVID-19, and making sure living conditions are discussed with those that do test positive for COVID-19. It also advised that the US has been researched and drafted COVID-19 response and treatments primarily from China and Italy, 2 countries with populations racially unlike the US. We need to take a closer look at COVID-19 treatment and response strategies with our data or with countries that have populations more like that of the US.

### ***COVID-19 Direct Effect on Non-COVID-19-Related Medical Conditions: the New Health Care Disparity***

Patient X was diagnosed with Stage IV rectal melanoma in May. She had to wait 2 months for her colonoscopy which would ultimately make her diagnosis. Because of a delay in diagnosis, she suffered a delay in surgical intervention, immunotherapy, and radiation treatment for her aggressive cancer. She would also find herself in an ER and then be admitted to the hospital because of the complications that could have been avoided had her diagnosis been made sooner. How many other patients faced similar experiences? According to a study conducted by the Epic Health Research Network,<sup>6</sup> the number of screening appointments for cervical, breast, and colon cancer was 86 %–94% lower in the early months of the pandemic than in prior years. In an opinion piece<sup>6</sup> in the New York Times from September 2020, Dr Farrugia (president and CEO of the Mayo Clinic) advised that “in the case of cancer alone, our calculations

show we can expect a quarter of a million additional preventable deaths annually if normal care does not resume.” In the same opinion piece, Suzanne Steinbaum, DO, a preventive cardiologist and volunteer medical expert for the American Heart Association stated: “I’m seeing patients with preexisting heart problems who’ve gotten worse and had increases in blood pressure or blood sugar during the shelter in place. Even women without heart problems were eating and sleeping poorly, skipping exercise, and under lots of stress—all of which can contribute to heart disease, the leading cause of death in women in the US.”

In May of 2020, canceled/postponed elective surgeries, outpatient procedures, and clinic appointments starting in March were recommended by the US surgeon general, the CDC, numerous medical societies, and state orders across the US.<sup>7</sup> An estimated 4 million elective surgeries would be canceled in the US during 12 weeks of disruption because of COVID-19, according to a study published in the *British Journal of Surgery*.<sup>7</sup> As a result, almost all joint replacements and many preventative cardiac procedures were postponed and a quarter of patients with cancer had delays in their cancer treatments. Routine pediatric vaccination declined and global vaccination campaigns halted, leaving more than 80 million children unvaccinated. Elective procedures may be viewed as optional, but most are not. Procedures such as hysterectomies, cancer biopsies, and knee replacements if delayed can have a devastating impact on quality of life and outcomes.<sup>8</sup>

### ***COVID-19 and its Impact on Cardiac Emergencies***

A comparative cross-sectional study<sup>9</sup> was conducted at the Rawalpindi Institute of Cardiology, a tertiary cardiac center of Pakistan, which assessed the impact of COVID-19 on management, admissions, and mortality in their emergent cardiac patients. This study compared the number of emergency department (ED) visits, overall death, admission, cases of decompensated heart failure, ST-Elevated Myocardial Infarctions (STEMIs), and other cardiac emergencies during COVID-19 lockdown to the same time period in 2019 (pre-COVID-19). The results were published in an article by Hamid Sharif Khan and colleagues. During 45 days of lockdown due to the pandemic from March to May, the outpatient department was closed and the hospital was only providing emergency services including percutaneous coronary intervention (PCI) for acute STEMI. It was decided, however, that the stable patient with STEMI and those patients with suspected COVID-19 symptoms would be lysed to prevent the risk of COVID-19 transmission. This study showed a dramatic decline in the admission of cardiac ailments at a tertiary hospital, which demonstrates the impact COVID-19 could have on the morbidity and mortality of cardiac patients. The data from this study are listed later in discussion and highlight the breath of complicated cardiac patients that may be in a worse situation and that will likely present to this hospital once the pandemic is over.

- 32.8% decrease in total ED visits
- 86.86% decrease in admission for decompensated heart failure
- 37.84% decrease in STEMI cases
- 45.33% decrease in overall hospital admission

### ***Decreased Hospital Admissions and Emergency Room Visits Due to the Fear of Contracting COVID-19***

A CDC report compared ER visits in April of 2020 with 2019 data, numbers of those presenting to the ED with nonspecific chest pain, myocardial infarction (MI) decreased. ER visits for common atypical symptoms of MI also decreased.<sup>9</sup> Analysis of CDC data demonstrated that in New York and New Jersey from March 15 to May 2,

2020, more than 6000 people died of an MI and more than 800 people died of complications from DM than the same time frame in prior years.

#### Personal observation

Before I would be furloughed from my position in the ED because of financial hardship COVID-19 placed on my hospital, it was eerie walking in and not having a single patient on the tracking board. Normally, I would walk in for my shift and 5 to 6 patients would be waiting for me to clock in. My first thought was what happened to all the patients with stroke, MI, and other life-threatening pathology that normally present to our ED? We know people did not stop having MIs during the pandemic.

In the United Kingdom during the lockdown, the public message was to stay at home, leaving home for only essential needs just as it was in the US. In the UK and the US in March during the time of lockdown, there was much anxiety among the general public especially those with preexisting conditions. In England alone, there were 29% fewer ED attendances. The Office for National Statistics reported the highest death rate in England and Wales since the year 2000. There were 6082 more deaths than the 5-year average, and only 3475 of these deaths were related to COVID-19,<sup>8</sup> raising more alarm that an increased number of deaths were occurring unrelated to COVID-19 because of the strain on the health care system due and public resistance to see medical attention because of concerns for contracting COVID-19.

#### *Toll on Routine Medical Care*

The use of telehealth and virtual visits has proven helpful for many people seeking nonurgent medical care. However, high-risk populations such as minorities and the elderly may not have access to them. High literacy in technology, the Internet, and access to technology capable of accessing telemedicine are needed, in which at-risk patients may have difficulty to accessing.<sup>10</sup> The Israeli Center for Disease Control recommends raising awareness using media campaigns calling for the patient to not neglect acute or chronic medical needs or screenings.<sup>10</sup> They also recommend calling patients in your practice or community who are known to be at risk are equally important to promote community health for COVID-19-related practices and non-COVID-19-related medical needs such as screening and medical appointments.<sup>10</sup>

In the spring, at the start of the pandemic, many hospitals asked patients to stay at home, not seek routine care, and not seek ER care with mild symptoms. The health care system is faced with a fine balance to treat not only those with COVID-19 but also those with non-COVID-19-related medical needs.<sup>8</sup> Ensuring that by focusing on treating and preventing COVID-19, we are not worsening morbidity and mortality for those with non-COVID-19-related medical needs. We must equitably care for both COVID-19- and non-COVID-19-related patients. The IQVIA Institute for Human Data Science estimates there are 42 million mammograms performed annually, with a cancer detection rate of 5.1 per 1000 mammograms performed. Thus, this suggests that for each month, screening mammograms are closed, and 17,850 Americans with breast cancer will be undiagnosed. Short-term limitations may be needed as cases of COVID-19 increase; however, medicine does not know yet the evidence-based risk benefit of short-term closings and if this is needed on an individual basis or as a population.<sup>8</sup>

In an online interview,<sup>11</sup> Tom Lindquist, the CEO of Allina Health-Aeta, advises that besides reaching out to media interviews and recording podcasts encouraging at-risk populations to seek care and encourage patients to return to routine care, they are

making efforts to make sure at-risk patients feel safe for their visit. They are sending convenience packages to seniors that include thermometers, masks, and hand sanitizer to help them feel safe to visit a clinic if they need or prefer this option over a virtual visit.

## DISCUSSION: WHAT CAN WE DO AS HEALTH CARE PROVIDERS

### Key Points

- Provide education to our patients on the risk of contracting COVID-19 during unrelated hospital admission versus the benefit of the hospital admission for non-COVID-19-related illness.
- Discuss COVID-19 with our patients with the truthful data and up-to-date CDC guidelines to prevent transmission are crucial such as wearing a mask, social distancing, and avoiding crowds, just as we counsel them on smoking cessation and wearing their seatbelt.
- Advising and educating patients on the risk benefits of having an elective procedure, being admitted to the hospital versus their actual risk of contracting COVID-19.
- Proactively reaching out to patients, encourage medical screening examinations, their need for urgent, emergent, and routine care while reassuring patients' measures we are doing to ensure their safety.
- Telemedicine and virtual visits have increased access; however, we need to have a way to call or reach our elderly patients and those at risk who may not have access to them to raise awareness for the need for routine, acute, and chronic medical needs

### *Risk of Nosocomial COVID-19 Infection from Unrelated Hospital Admission*

At the start of the pandemic, and still currently, there has been a significant decline in hospital admissions for non-COVID-19-related pathology. This is believed to be partly due to patients' anxiety about contracting COVID-19 and anxiety about the risk of mortality associated with contracting COVID-19 during a hospital stay. One thing we as providers can do to encourage patients to agree to admission or seek emergency medical care is educate and counsel patients that their risk for contracting COVID-19 during a non-COVID-19-related admission, although there is still a risk, is relatively low. Patients being admitted to the hospital actually have a greater risk of contracting COVID-19 in the community than as a nosocomial infection.<sup>12</sup>

The risk of contracting COVID-19 during hospital admission and the risk of mortality was evaluated by the COPE-Nosocomial Study,<sup>12</sup> and results were discussed in an article by Carter and colleagues. The study's aim was to identify patients who acquire nosocomial COVID-19 (NC) infection during their hospital admission and their risk of mortality compared with those with community-acquired COVID-19 (CCA) infections. In this observational study, they looked at 1564 patients admitted to the hospital for COVID-19. They compared outcomes between those admitted for a non-COVID-19-related reason within 15 days of diagnosis with those that were not recently admitted to the hospital and thus contracted the virus from the community. Of all 1564 cases they looked at, only 12.5% of the patients contracted COVID-19 from their recent hospital stay. NC infection was associated with lower mortality rate than CAC infections. The median survival time in patients with NC infections was 14 days compared with 10 days in patients with CAC infections. There was no difference between 7-day mortality between the 2 groups. However, those with NC infections required longer hospital stay.

## SUMMARY

COVID-19 disproportionately affects people of color in terms of hospital admission, severity of illness, and mortality. This is a multifactorial problem with multiple coordinated events that need to align to help improve the lives of those at risk for COVID-19 not just at the level of the health care delivery system but at the city, state, and federal levels. We need to increase our own training in diversity and promote cultural humility for not only ourselves but also the organizations we work for. We know that COVID-19 is affecting those with non-COVID-19-related medical needs and ultimately increasing morbidity and mortality from non-COVID-19-related medical conditions. We as providers can take simple yet big measures in health promotion and wellness to combat disparities in the face of COVID-19. We need to ensure that our patients are educated on the need to seek help when they need it, continue to receive routine care during the pandemic, and educate our patients on the risk of contracting COVID-19 versus the larger risk of suffering morbidity and mortality from their non-COVID-19-related medical illness. We need to increase health promotion and wellness with our minority patients disproportionately at risk should they contract COVID-19. Not only do we have to increase health promotion around COVID-19 but also we have to ensure that they have access to care and testing and recognize things we can do in our community or practice to ensure they have these capabilities.

## CLINICS CARE POINTS

- People of color are at a greater risk for hospitalization, complications, and death from COVID-19. We as medical providers need to increase contact with our patients at risk within our practice and community. We need to incorporate health promotion and wellness around COVID-19 in our patients of color. We need to take measures to ensure they have access to care and testing. We need to ensure our patients of color trust us by promoting cultural humility in our practices.
- There is a fine balance between preventing COVID-19 and treating those who contract COVID-19, while still treating those who need medical screening and have non-COVID-19-related medical needs. We need to incorporate health promotion, wellness, and education to our patients on the need to seek care when they truly need it and the risk/benefit of contracting COVID-19 versus the risk of morbidity and mortality for non-COVID-19-related medical needs.

## DISCLOSURE

The author has nothing to disclose.

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